18 . CLAIMS

A method for selectively enriching/removing a serum albumin from a mixture of other compounds by contacting said mixture with a ligand (= X), said ligand

- a) having affinity for and enabling binding of the serum albumin and
- b) being attached via a spacer (= B) to a base matrix (= M') insoluble in the aqueous media used, the matrix with the attached ligand being represented by

M-B-X

where M is the matrix, B the spacer and X the affinity ligand, with the provision that M may contain further groups X linked via a spacer,

characterized in that said ligand X has been selected among serum albumin-binding structures complying with the formulae

$$R_1$$
 R_2
 R_3
 R_4

20 in which

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- a) the free valence bind to the spacer B;
- b) R_{1-4} are selected from hydrogen, electron-withdrawing groups, such as halogens and lower alkyl groups (C_{1-10}) that possibly are substituted with electron withdrawing groups, such as halogens;
- c) Z and Y are selected among oxygen, sulphur or nitrogen, with the provision that the nitrogen may carry a positive charge.

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- 2. The method according to claim 1, characterized in that contact between the mixture and the media M-B-X is done in an aqueous media having a pH at which the -B-X carries a positive charge.
- 3. The method according to anyone of claims 1-2, characterized in that at least one of R1-4 exhibit an electron withdrawing group, preferably selected among halogens such as fluorine.
- \Box 10 4. The method according to anyone of claims 1/3, characterized in that the spacer have a sulphur atom next to X.
 - 5. The method according to any one of claims 1-4, characterized in that Z and Y are nitrogens, one of which binding to a hydrogen and the ligand structure being charged depending of pH.
 - 6. The method of anyone of claims 1-5, characterized in that said mixture derives from a host in which said serum albumin is human serum albumin.
 - 7. The method of anyone of claims 1-6, characterized in that said ligand is attached covalently to said matrix.
 - 25 8. The method of anyone of claims 1-7, characterized in that after the adsorption step said serum albumin is eluted from said affinity adsorbent and if necessary further processed.
 - 9. A method for screening for ligands structures that, when
 30 attached to an affinity matrix, selectively bind albumin,

 (characterized that water-soluble compounds that exhibit a
 benzene ring fused to a 5-membered heterocycle containing two

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or three heteroatoms, preferably two, selected from nitrogen, oxygen and sulphur after having been attached to a matrix, preferably in the 2-position, are screened for selective binding to albumin.

10. The method of claim 9, characterized in that screening is taking place in aqueous solutions at a pH at which the ligand stucture including and spacer binding to the matrix is positively charged.